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Basis of “Revised Early Approximation” of Undercounts Released Oct. 17, 2001

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At his request, we provided Acting Director William Barron a “Revised Early Approximation” to illustrate the effect on the A.C.E. estimates of a possible future revision. We believe that these preliminary estimates served several public purposes: to show that evaluation data indicated that a substantial revision of the A.C.E. estimates was required; to explain that we now had a candidate explanation for the discrepancies between the A.C.E. estimates and demographic analysis, since that had been the key basis of the March, 2001 ESCAP recommendation; and to show that, in spite of this finding, we expected a revised A.C.E. to continue to show a differential undercount. We believe that Mr. Barron appropriately explained that we had not yet revised the detailed A.C.E. estimates, and that extensive research was required before we could do so. Because of timing, we were unable to discuss the methods or results with the entire ESCAP.

Each of us worked directly with the staff in reviewing the findings on A.C.E. accuracy from several evaluation studies, including the Measurement Error Reinterview (MER) and Matching Error Study (MES). Our review indicated:

- Additional work on analysis of the P-sample MER results will be important, but it appeared that MER and MES results were offsetting and indicated little net P-sample error.
- The MER and person duplication study now indicated the E-sample would require substantial correction, because the A.C.E. had underestimated erroneous enumerations. The MES results also measured some underestimation, but we were unable to include them because of some overlap with MER.
- Although there was evidence of correlation bias for Black males similar to that shown in previous censuses, we do not anticipate that revision of the A.C.E. estimates will incorporate a correction for correlation bias, since the Census Bureau has never committed to doing so in the past. Consequently, we did not use estimates of correlation bias in estimating what a revision to the A.C.E. might look like.

- Detection of additional erroneous enumerations in some cases would imply changes to P-sample outcomes as well. We reasoned, however, that many changes would be to A.C.E. E-sample cases currently nonmatched, and that conversion of matched E-sample cases to erroneous enumerations, in changing the corresponding matched P-sample cases to nonresident, would change both the estimated matches and P-sample total with much smaller relative effect on the dual-system estimate.

Consequently, the “Revised Early Approximation” was produced by a simple approximation, taking current estimates of percent undercount and subtracting estimated adjustments from Table 9, “Evidence of Additional Erroneous Enumerations from the Person Duplication Study, Version 1,” currently posted as ESCAP II report #9. Specifically, the estimates with an allowance for 75.7% efficiency of computer matching were used.

Table 1 Estimated Percent Undercount from the A.C.E. and a “Revised Early Approximation”

	A.C.E.	MER/Duplicate Study Correction	Revised Early Approximation
Non-Hispanic Black	2.17 (0.35)	1.39 (0.29)	0.78 (0.45)
Hispanic	2.85 (0.38)	1.60 (0.39)	1.25 (0.54)
Other	0.73 (0.14)	1.01 (0.14)	-0.28 (0.20)
Total	1.18 (0.13)	1.12 (0.12)	0.06 (0.18)